

**Cattaraugus County
Soil & Water Conservation District**

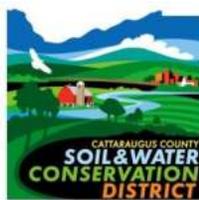
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FINAL REPORT

Contract Number C306472

LEWPA YEAR 3 EPF FY 2018

October 2020



Report prepared by:

Megan Boberg – District Field Manager
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Lake Erie Watershed Hydroseeding Initiative

Projects were completed in August 14th, 2020

LEWPA funds allocated through the hydroseeding program provided road ditch and post construction soil stabilization at no cost. This helped stabilize approximately 8 acres of roadside ditches, outlets, banks, slopes and other sensitive areas within the watershed. All hydroseeding projects have been monitored to ensure vegetation established and to verify that erosion hadn't occurred.

All of the projects that were funded through LEWPA were also hydroseeded upon completion of the project. Other areas that were hydroseeded included roadside ditches that had just been cleaned out by the local highway departments. Many of our local highway departments understand the importance of established vegetation in the roadside ditches. Grassed Waterways/Gully Stabilization typically has a lifespan of 4 years.

LEWPA Funds: \$10,946.00

Local Leveraged Funds: \$13,316.59



| Annual Tons of Sediment Reduced | Annual Pounds of Phosphorous Reduced | Annual Pounds of Nitrogen Reduced | Lifespan Tons of Sediment Reduced | Lifespan Pounds of Phosphorous Reduced | Lifespan Pounds of Nitrogen Reduced |
|---------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|--|-------------------------------------|
| 3,705.10 | 3,705.10 | 7,410.10 | 14,820.40 | 14,820.40 | 29,640.40 |

Connoisarauley Creek Streambank Stabilization Project – Manaher

Project Start & Completion Dates: August 15th to August 20th, 2019

LEWPA funds were utilized to address an eroding streambank on Connoisarauley Creek. The overall project stabilized approximately 250 linear feet of streambank. The project included a 2:1 slope that included a 3x3 toe with two keys 20 feet in length and three rock veins. This was designed by a professional engineer from funding that was secured through a federal grant (Appalachian Regional Commission) and funds were set aside by the landowner. LEWPA funds were used to hire the contractor and the District hydroseeded the project once construction activities were completed. Stream stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$5,814.75

Local Leveraged Funds: \$25,050.00



| Annual Tons of Sediment Reduced | Annual Pounds of Phosphorous Reduced | Annual Pounds of Nitrogen Reduced | Lifespan Tons of Sediment Reduced | Lifespan Pounds of Phosphorous Reduced | Lifespan Pounds of Nitrogen Reduced |
|---------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|--|-------------------------------------|
| 504.70 | 504.70 | 1,009.40 | 5,047.00 | 5,047.00 | 10,094.00 |

Tributary to Elton Creek Stream Stabilization Project – Town of Freedom

Project Start & Completion Dates: September 12th to 24th, 2019

LEWPA funds were used to assist the Town of Freedom in addressing an area along Edmunds Road where a Tributary to Elton Creek is advancing towards the road and undercutting the road shoulder. Left untouched this stream could jeopardize the road and will continue to erode with even significant rain event. LEWPA funds were used to re-shape this 150 linear foot section of eroding stream with rock riprap, toe/bank protection and keyed back into the bank. Once construction was completed the entire site was hydroseeded by the District. LEWPA funds assisted the Town with the contractor fees. Ditch/Streambank stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$3,158.88



Local Leveraged Funds: \$20,193.30



| Annual Tons of Sediment Reduced | Annual Pounds of Phosphorous Reduced | Annual Pounds of Nitrogen Reduced | Lifespan Tons of Sediment Reduced | Lifespan Pounds of Phosphorous Reduced | Lifespan Pounds of Nitrogen Reduced |
|---------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|--|-------------------------------------|
| 145.40 | 145.40 | 290.70 | 1,454.00 | 1,454.00 | 2,907.00 |

Tributary to South Branch of Cattaraugus Creek Stream Restoration – Town of Otto

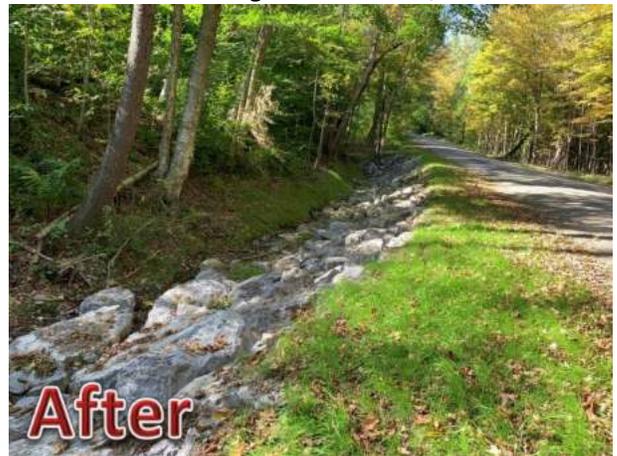
Project Start & Completion Dates: August 21st to 23rd, 2019

LEWPA funds were used to assist the Town of Otto with an eroding stream that functions as a roadside ditch along Gibson Hill Road. The Tributary to South Branch of Cattaraugus Creek is advancing towards Gibson Hill Road and was starting to undercut the roadside shoulder and potentially jeopardizing the road, especially with the significant rain events. The Town is worried this could become a safety issue and want to fix this the proper way but has limited funds. LEWPA funds were used to stabilize approximately 250 linear feet of eroding streambank with rock riprap, toe/bank protection and keyed back into the bank. Once construction activities were completed the entire site was hydroseeded. LEWPA funds assisted the Town with the contractor fees. Ditch/Streambank stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$7,966.73



Local Leveraged Funds: \$11,581.58



| Annual Tons of Sediment Reduced | Annual Pounds of Phosphorous Reduced | Annual Pounds of Nitrogen Reduced | Lifespan Tons of Sediment Reduced | Lifespan Pounds of Phosphorous Reduced | Lifespan Pounds of Nitrogen Reduced |
|---------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|--|-------------------------------------|
| 151.40 | 151.40 | 302.80 | 1,514.00 | 1,514.00 | 3,028.00 |

Mansfield Creek Stream Meander Project – Telaak’s Dairy Farm

Project Start & Completion Dates: August 26th, 2019

LEWPA funds were used to help Telaak’s Dairy Farm on Hinman Hollow Road in the Town of Mansfield. Back in 2014 Trout Unlimited and USFWS did a joint project on this section of Mansfield Creek. It included trout habitat improvements, streambank stabilization, grade stabilization, ford-stream crossing and tree plantings. Ove the last two years the beaver have moved into the area and have created a dam around this section of the stream causing the water to flow through the secondary channel, which is now the main channel. This has caused a lot of issues and wasn’t allowing the stream to use the project that was done back in 2014. The beavers are gone now, the landowner and Trout Unlimited wanted to partner with LEWPA. LEWPA funds were used to install a channel block that would push the stream back to its original channel, add another ford-stream crossing and some grade control structures. Streambank stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$5,302.80

Local Leveraged Funds: \$0.00



| Annual Tons of Sediment Reduced | Annual Pounds of Phosphorous Reduced | Annual Pounds of Nitrogen Reduced | Lifespan Tons of Sediment Reduced | Lifespan Pounds of Phosphorous Reduced | Lifespan Pounds of Nitrogen Reduced |
|---------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|--|-------------------------------------|
| 40.90 | 40.90 | 81.80 | 409.00 | 409.00 | 818.00 |

Gooseneck Creek Streambank Stabilization Project – Cattaraugus County DPW

Project Start & Completion Dates: August 12th & August 13th, 2020

LEWPA funds were used to assist Cattaraugus County DPW with a project that is located along Gooseneck Creek C(TS) that runs parallel to Route 240/CR-32 in the Town of Ashford. This stream has a shale bottom and the left bank that runs along Route 240/CR-32 is approximately 20 feet high. This 200' section of road shoulder was sliding off into the stream which was jeopardizing the road and unsafe to motorists. Funds were used to hire a contractor to shave the bank back to a manageable 2:1 slope to prevent further erosion and material sliding off directly into the stream. Silt sock was installed just above the shale to collect any debris from rolling down the bank and into the stream. The County provided medium rock riprap to rock line a cross culvert outlet that was eroded and contributing silt and sediment directly into the stream. Once the project was to grade it was hand seeded, jute netting was rolled out over the entire site and the entire areas was hydroseeded. Ditch/Streambank stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$3,216.22

Local Leveraged Funds: \$5,203.59



| Annual Tons of Sediment Reduced | Annual Pounds of Phosphorous Reduced | Annual Pounds of Nitrogen Reduced | Lifespan Tons of Sediment Reduced | Lifespan Pounds of Phosphorous Reduced | Lifespan Pounds of Nitrogen Reduced |
|---------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|--|-------------------------------------|
| 80.80 | 80.80 | 161.50 | 808.00 | 808.00 | 1,615.00 |

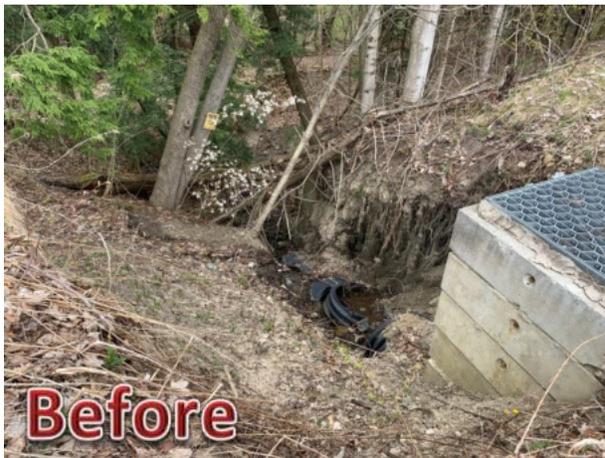
Route 240 DI Repair – Cattaraugus County DPW

Project Start & Completion Dates: August 13th & August 14th, 2020

LEWPA funds were used to assist Cattaraugus County DPW with another project along Route 240/CR-32 in the Town of Ashford. A drop inlet drainage structure that runs under Route 240/CR-32 was experiencing server erosion on the outlet end of the DI. The concrete structure was exposed and the earth around it was washing away which was exposing the pipes that enter the DI structure. Before construction this was a 20' x 20' hole that had over a 15' drop off. This was jeopardizing the road and making it unsafe for motorists. LEWPA funds were used to hire a contractor to do the job and the county provided materials, man power and other equipment necessary to complete the job. Gully stabilization projects typically have a lifespan of 4 years.

LEWPA Funds: \$3,072.86

Local Leveraged Funds: \$9,789.14



| Annual Tons of Sediment Reduced | Annual Pounds of Phosphorous Reduced | Annual Pounds of Nitrogen Reduced | Lifespan Tons of Sediment Reduced | Lifespan Pounds of Phosphorous Reduced | Lifespan Pounds of Nitrogen Reduced |
|---------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|--|-------------------------------------|
| 605.60 | 605.60 | 1,211.30 | 2,422.40 | 2,422.40 | 4,845.20 |

Lime Lake Eurasian watermilfoil Eradication

Project Start & Completion Date: June 25th, 2020

Funding was used to assist the Lime Lake Cottage Owners' Association (LLOCOA) and the Town of Machias with the costs to treat 30 acres of Lime Lake with an herbicide (Aquathol K) to control Eurasian watermilfoil. The LLOCOA and the Town have been hiring a company to come in the treat Lime Lake with an herbicide for years to maintain in the invasive species. If the LLOCOA and the Town stop applying herbicides, the dense thick beds form rapidly. When these beds form they restrict the native plants from growing throughout the lake which affects the macroinvertebrates and the native fish species. Studies have found that milfoil infested lakes tend to have a reduced fish spawning areas and lowered fish growth rates. Waters inhibited with Eurasian watermilfoil may be stagnant or can restrict the natural flow.

LEWPA Funds: \$15,358.00

Local Leveraged Funds: \$5,000.00



Public Outreach & Education

Ongoing Activity

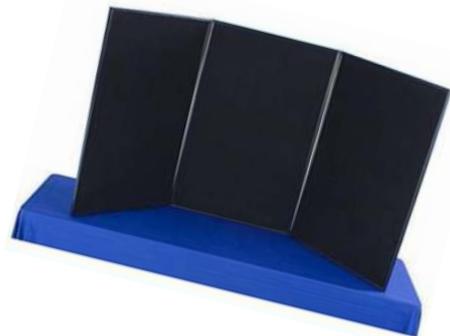
The Cattaraugus County Soil & Water Conservation District organizes several education & outreach program each year. In an effort to expand the reach to the general public additional funding is sought to publicize the LEWPA efforts with the county.

Travel Display Board & Supplies: LEWPA funding was used to purchase a tri-fold display board and folding table that can be used throughout the watershed in Cattaraugus County to promote and educate the public about LEWPA. The traveling display board can be set up at multiple town halls, public libraries, municipal buildings and county buildings where the public passes through on a daily basis. This display board can be changed to educate the public about what LEWPA has accomplished in Cattaraugus County and it can be used to promote LEWPA and find future projects. Unfortunately, the traveling display board never had a chance to be used throughout LEWPA Year 3 due to COVID-19 and events being cancelled. The District still plans on using the display board in future years at the local county fair, the Cattaraugus County Farmer Neighbor dinner that's held every April, the local highway meetings and at other events that seem fit.

2020 Outreach Calendars: LEWPA funds were used to purchase 500 custom 2020 calendars. The calendars have information about LEWPA and include before and after pictures from the last three years of projects. The plan was to pair these calendars with the traveling display board and to be handed out at meetings, but as mentioned above we were never able to go to any of the events due to COVID-19. The District is still trying to get them out to the public since we have a few months left in 2020. If anything they can be used as a lengthy handout to show various projects the District did.

LEWPA Funds: \$2,000.00

Local Leveraged Funds: \$1,118.87



Water Quality Monitoring

May 21st, 2019 to June 24th, 2020

The NYS Department of Environmental Conservation contracted with the US Geological Survey (USGS) to conduct baseline water quality monitoring in the Lake Erie Watershed. This baseline monitoring will include monthly sampling for nutrients and sediments in 19 locations across the watershed. The objective of this project is to collect baseline nutrient and sediment water quality data along with discharge that can be used for watershed model development that will help focus further water quality improvement efforts in the basin, and aid in loading calculation and future regional target-setting efforts for nutrient reduction. Nineteen sites were selected by the NYSDEC including segments from the impaired waters list, input from LEWPA, and to cover a range of watershed size and land-use types. Sample collection will be conducted by the USGS and will include regularly scheduled monthly/seasonal sampling, event sampling, and discharge along with each sampling event. Also, continuous discharge data collection from 13 gages will be used in pollutant load calculations.

Pathogen Monitoring: The Districts and LEWPA will work with the NYS Department of Environmental Conservation, Division of Water staff to conduct a pathogen monitoring program that will parallel the USGS baseline water quality assurance plan reviewed and approved by the NYSDEC.

LEWPA Funds: \$13,813.76

Local Leveraged Funds: \$0.00



LEWPA Year 3 "Overview"

| Projects | Totals |
|--|---------------------------|
| Lake Erie Watershed Hydroseeding Initiative | <i>(\$10,946.00)</i> |
| Connoisarauley Creek Streambank Stabilization Project – Private | <i>(\$5,814.75)</i> |
| Trib. to Elton Creek Streambank Stabilization Project – Town of Freedom | <i>(\$3,158.88)</i> |
| Trib. to South Branch of Cattaraugus Creek Stream Restoration – Town of Otto | <i>(\$7,966.73)</i> |
| Mansfield Creek Stream Meander Project – Private | <i>(\$5,302.80)</i> |
| Gooseneck Creek Streambank Stabilization Project – Cattaraugus County DPW | <i>(\$3,216.22)</i> |
| Route 240 DI Repair – Cattaraugus County DPW | <i>(\$3,072.86)</i> |
| Lime Lake Eurasian watermilfoil Eradication | <i>(\$15,358.00)</i> |
| Public Outreach & Education | <i>(\$2,000.00)</i> |
| Water Quality Monitoring | <i>(\$13,813.76)</i> |
| LEWPA Year 3 Grant Total | <i>\$70,650.00</i> |
| Leveraged Funds Total | <i>\$91,253.07</i> |

| Annual Tons of Sediment Reduced | Annual Pounds of Phosphorous Reduced | Annual Pounds of Nitrogen Reduced | Lifespan Tons of Sediment Reduced | Lifespan Pounds of Phosphorous Reduced | Lifespan Pounds of Nitrogen Reduced |
|--|---|--|--|---|--|
| 5,233.90 | 5,233.90 | 10,467.60 | 26,474.80 | 26,474.80 | 52,947.60 |

For all Year 3 LEWPA Projects